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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GEORGE P. COPELAND, MICHAEL H. CONNER, and  
GREGORY A. FLURRY

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Appeal 2008-000063  
Application 09/740,531  
Technology Center 2400

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Decided: September 9, 2009

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Before JEAN R. HOMERE, JAY P. LUCAS, and STEPHEN C. SIU,  
*Administrative Patent Judges.*

SIU, *Administrative Patent Judge.*

DECISION ON APPEAL  
STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-17 and 19-21. Claim 18 has been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm in part.

### *The Invention*

The disclosed invention relates generally to detecting and handling affinity breaks between a client and server (Spec. 15).

Independent claim 1 is illustrative:

1. A software system for distributed web applications, supporting client/server affinity detection, comprising:
  - a server;
  - a client, adapted to send requests to the server; and
  - a numeric-valued generation ID, accompanying each request from the client to the server, incremented by the server upon receiving the request, and recorded by the server before being returned to the client, and such that if the generation ID accompanying a request from the client differs from the generation ID recorded by the server, an affinity break between the client and the server is detected.

### *The References*

The Examiner relies upon the following references as evidence in support of the rejections:

Barbara	US 5,706,435	Jan. 06, 1998
Anuff	US 6,327,628 B1	Dec. 04, 2001

### *The Rejections*

1. The Examiner rejects claims 1-3, 10-12, 14-16, and 19-21 under 35 U.S.C. § 102(e) as being anticipated by Barbara.
2. The Examiner rejects claims 4-9, 13, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Barbara and Anuff.<sup>1</sup>

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<sup>1</sup> The Examiner rejects claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Barbara and Anuff but rejects claims 5-7 under 35 U.S.C.

### ISSUE 1

Appellants assert that “Barbara fails to anticipate not just one, but many of the limitations recited in present claim 1” (Reply Br. 4).

Did Appellants demonstrate that the Examiner erred in finding that Barbara discloses the limitations recited in claim 1?

### ISSUE 2

Appellants assert that “Barbara fails to anticipate all limitations of independent claims 10 and 19” (Reply Br. 7).

Did Appellants demonstrate that the Examiner erred in finding that Barbara discloses the limitations recited in claims 10 and 19?

### ISSUE 3

Appellants assert that “Barbara and Anuff each fail to provide motivation that would enable one skilled in the art to combine or modify the teachings of Barbara and Anuff” (Reply Br. 8).

Did Appellants demonstrate that the Examiner erred in finding that it would have been obvious to one of ordinary skill in the art to have combined the Barbara and Anuff references?

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§ 102(e) as being anticipated by Barbara. Because claims 5-7 depend from claim 4, we assume claims 5-7, like claim 4, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Barbara and Anuff.

### FINDINGS OF FACT

The following Findings of Facts (FF) are shown by a preponderance of the evidence.

1. Barbara discloses a server that “stores a respective timestamp for each respective datum” (col. 7, l. 67-col. 8, l. 1).
2. Barbara discloses that each “timestamp identifies the time at which the respective datum was most recently updated” (col. 8, ll. 3-4).
3. Barbara discloses that “the address of the datum and the timestamp of the datum are added to the invalidation report” (col. 8, ll. 10-11).
4. Barbara discloses that the server “broadcasts the report to all clients” (col. 8, l. 16).
5. Barbara discloses that at the client, “the next invalidation report broadcast by the server . . . is received” (col. 8, ll. 25-26).
6. Barbara discloses that at the client, “the respective timestamp stored in cache and associated with the address of the datum is checked to determine whether the timestamp (i.e., the time that a report was last received by the client) was within the window of time immediately preceding the report” (col. 8, ll. 32-37) and the “if not [match is not found], then . . . the datum is presumed to be invalid” (col. 8, ll. 37-41).
7. Barbara discloses that “[i]f . . . the timestamp of the datum is within the window preceding the timestamp of the report . . . the timestamp of the datum is changed to the timestamp of the report” (col. 8, ll. 44-50).

8. The Specification discloses that an affinity break is detected when a server's "affinity with the client was interrupted, and any client-specific data in its cache may be invalid" (Spec. 15).
9. Anuff discloses that data "when created or retrieved, is automatically put into a memory cache" (col. 11, ll. 60-61) and that the "memory cache can be cleared by the Java Virtual Machine (JVM) when resources are running low" (col. 11, ll. 61-63).

## PRINCIPLES OF LAW

### *35 U.S.C. § 102*

In rejecting claims under 35 U.S.C. § 102, "[a] single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation." *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1375 (Fed. Cir. 2005) (citation omitted). "Anticipation of a patent claim requires a finding that the claim at issue 'reads on' a prior art reference." *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999) (citation omitted).

### *Obviousness*

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”  
*KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

## ANALYSIS

### Issue 1

Based on Appellants’ arguments in the Appeal Brief, we will decide the appeal of claims 1-9 with respect to Issue 1 on the basis of claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

As set forth above, Barbara discloses broadcasting an “invalidation report” that contains timestamps of updated data to a computer (FF 1-4) in which the receiving computer compares a stored timestamp (i.e., a “timestamp stored in cache”) with a timestamp received in the invalidation report (FF 6). If a match is not found, the data is “presumed to be invalid” (FF 6). Since an affinity break exists when the “affinity with the client was interrupted” and client-specific data is invalid (FF 8), we find no distinction between the claimed request (i.e., invalidation report) containing a timestamp (i.e., “numeric-valued generation ID”) being sent to a computer in which the received timestamp (i.e., generation ID) is compared to a previously stored timestamp (at the receiving computer) to detect invalid data (i.e., an “affinity break”).

Appellants argue that Barbara fails to disclose that the generation ID (i.e., timestamp) “is incremented by the server” (Reply Br. 3). However, as set forth above, Barbara discloses that “the timestamp of the datum is changed to the timestamp of the report” (FF 7). Since such an action results

in updating the previously stored timestamp to a more current time (to match the received timestamp) which effectively “increments” the timestamp (i.e., increases the value of the timestamp), we disagree with Appellants’ contention that Barbara fails to disclose this feature.

Appellants also argue that “Barbara fails [to disclose] a . . . generation ID, which is recorded before being returned to the client” (Reply Br. 3) (emphasis omitted). However, as set forth above, Barbara discloses incrementing the previously stored timestamp to match the received timestamp (FF 7). Also, since Barbara discloses that the timestamp is updated after matching the timestamp to the received timestamp without any intervening actions, the updating or incrementing of the timestamp is performed prior to any other actions, including transmission of the timestamp, if such an activity were to take place.

Appellants also argue that Barbara fails to disclose detecting an affinity break because “[d]etermining data validity is not equivalent to detecting an affinity break between a client and a server” (Reply Br. 3-4). However, the Specification discloses that affinity breaks are detected when “any client-specific data in its cache may be invalid” (FF 8). Since, according to the Specification, affinity breaks are detected in the presence of invalid data in a client cache and since Barbara discloses detecting the presence of invalid data in a cache (which indicates the presence of an affinity break), we disagree with Appellants’ argument that Barbara fails to disclose detecting an affinity break.

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or



evidence persuasive of error in the Examiner's rejection of claim 1, or of claims 2-9, which fall therewith with respect to issue 1.

## Issue 2

Claim 10 recites incrementing a recorded generation ID (GID) and returning it to the client as the new GID. Appellants argue that "Barbara fails to disclose that the new GID . . . may be returned to the client" (App. Br. 10). We agree. While the Examiner demonstrates that Barbara discloses updating a timestamp, the Examiner has not demonstrated that Barbara also discloses returning the updated timestamp to the sending computer. Independent claims 19 and 21 recited similar features.

In addition, the Examiner does not demonstrate that Anuff discloses or suggests this feature.

Accordingly, we conclude that Appellants have met their burden of showing that the Examiner erred in rejecting independent claims 10, 19, and 21, and of claims 11-17 and 20, which depend therefrom.

## Issue 3

Based on Appellants' arguments in the Appeal Brief, we will decide the appeal of claims 4-9 with respect to issue 3 on the basis of claim 4 alone. *See* 37 C.F.R. § 41.37(c)(1)(vii).

As described above, Appellants argue that one of ordinary skill in the art would not have been motivated to combine the Barbara and Anuff references because, according to Appellants, there is no motivation or suggestion in either Barbara or Anuff to do so. However, our reviewing

court has held that whether a patent claim would have been obvious is based on “the objective reach of the claim” and is not “confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents.” *KSR*, 550 U.S. at 419. As such, we do not find persuasive Appellants’ argument that the cited references supposedly fail to provide an explicit “motivation” for one of ordinary skill in the art to have combined the Barbara and Anuff references. In determining whether a patent claim would have been obvious, “neither the particular motivation nor the avowed purpose of the patentee controls” (*id.*).

Both Barbara and Anuff disclose known methods of data management in computer systems involving storing data in a cache. Anuff further discloses that it was known to one of ordinary skill in the art to utilize a Java Virtual Machine to clear the cache if resources were running low (FF 9). Combining the known procedure of storing data in a cache (Barbara and Anuff) with the known procedure of utilizing a Java Virtual Machine to clear a cache if resources were running low (Anuff) would have entailed the mere rearrangement of known elements performing known functions to achieve the predictable result of storing data in a cache and removing data from the cache when necessary. “[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR*, 550 U.S. at 417 (citing *Sakraid v. AG Pro, Inc.*, 425 U.S. 273, 282 (1976)). Nor have Appellants demonstrated that storing and deleting data in a cache would have been

“uniquely challenging or difficult for one of ordinary skill in the art.” *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418).

For at least the aforementioned reasons, we conclude that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner’s rejection of claim 4, or of claims 5-9, which fall therewith with respect to issue 3.

### CONCLUSIONS OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have failed to demonstrate that the Examiner erred in:

1. finding that Barbara discloses the limitations recited in claim 1 (issue 1), and
2. finding that it would have been obvious to one of ordinary skill in the art to have combined the Barbara and Anuff references (issue 3).

However, Appellants have demonstrated that the Examiner erred in finding that Barbara discloses the limitations recited in claims 10 and 19 (and claim 21) (issue 2).

### DECISION

We affirm the Examiner’s decisions rejecting claims 1-3 under 35 U.S.C. § 102(e) and claims 4-9 under 35 U.S.C. § 103. We reverse the Examiner’s decision rejecting claims 10-12, 14-16, and 19-21 under 35 U.S.C. § 102(e) and claims 13 and 17 under 35 U.S.C. § 103.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

msc

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